

**CLAIMS**

1. A self-regulating tourniquet which includes:  
a pressure source;  
pressure applicator apparatus associated with said pressure source and operative to apply pressure therefrom to a subject limb; and  
a pressure regulator associated with said pressure source and said pressure member, operative to restrict the pressure transferred from said pressure source to the limb to a designated maximum pressure applied to the subject limb.
2. A self-regulating tourniquet according to claim 1, wherein said pressure regulator is configured to limit the pressure transferred from said pressure source to the limb to a predetermined pressure applied to the subject limb.
3. A self-regulating tourniquet according to claim 1, wherein said pressure regulator includes apparatus for adjusting the maximum pressure applied to the subject limb.
4. A self-regulating tourniquet according to claim 1, wherein said pressure applicator apparatus includes:  
a pressure member, for directly applying pressure to a selected area on the subject limb; and  
a contra member, adapted to at least partially circumvent the subject limb, and operative to resistively cooperate with said pressure member in applying a pressure to the subject limb.
5. A self-regulating tourniquet according to claim 4, wherein said pressure member is an inflatable member, and said pressure source is a portable fluid pressure source.
6. A self-regulating tourniquet according to claim 4, wherein said pressure source is a manually operable source by

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which a tension force may be applied to said contra member, and said pressure regulator includes apparatus for locking said contra member when the pressure applied to the subject limb reaches the maximum pressure.

7. A self-regulating tourniquet which includes:  
a pressure source of liquified gas;  
pressure applicator apparatus associated with said pressure source and operative to apply pressure therefrom to a subject limb; and  
liquified gas acting as a pressure regulator, associated with said pressure source and said pressure member, operative to regulate the pressure transferred to the limb to a maximum pressure of the steady-state of the liquid/gas phases.

8. A self-regulating tourniquet according to claim 6, wherein said liquified gas is selected to produce a steady-state pressure of a predetermined pressure applied to the subject limb at a given, working temperature.

9. A self-regulating tourniquet according to claim 6, wherein the temperature of said liquified gas is controlled by the body heat of the subject to produce a more stable steady-state pressure.

10. A self-regulating tourniquet according to claim 7, wherein the pressure source and the pressure applicator apparatus are separate modules adapted to be engaged by connecting means and thereby establish gas passage from the pressure source to said pressure applicator.

11. A self-regulating tourniquet according to claim 10, wherein a plurality of pressure applicators are embedded in wearable articles so as to at least partially circumvent limbs

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of a subject and operative to apply a pressure to the subject limb when engaged with a pressure source.